



New Course for Spring 2017 Quarter: **OBSERVATIONAL ASTRONOMY**



Taught by CPP Physics and Astronomy Professor
MATTHEW S. POVICH

In this *hands-on, computer-based* activity course, students will complete a project using high-resolution imaging data from the 3.5-meter WIYN telescope to learn:

- Basic features of astronomical instrumentation, from telescopes to detectors.
- Image processing and data reduction techniques employing the same specialized software and methods used by professional astronomy researchers.
- Astronomical data analysis, emphasizing *photometry* — measuring the brightness of stars in images of star clusters.
- Data visualization and plotting techniques.
- Computer skills, including the UNIX/LINUX command line and programming in Python or IDL.

This course is intended for Junior/Senior Physics Majors and Astronomy Minors.

Registration information:

- PHY 499A-01: Special Topics for Upper Division Students Activity
- Instructor: Matthew Povich
- **Spring 2017 only, MW 2-3:50 PM (2-unit activity course) in Room 8 52 computer lab**
- **Enrollment is capped at 20 students, so please register early!**
- Prerequisite: PHY 234 or consent of instructor (PHY 235 recommended as a co-requisite)
- Counts as an upper-division (400-level) elective in Physics or related fields.
- **Physics majors**, including graduating seniors, may petition to have this course *replace* one upper-division lab (PHY 430/1/2L) or be counted toward core elective units.

Questions or concerns? Contact Professor Povich: mspovich@cpp.edu; (909) 869-3608

